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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HUYNH, CONG LAC T

ART UNIT PAPER NUMBER..

2178

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/593,176

Applicant(s)

BATES ET AL.

Examiner

Cong-Lac Huynh

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: amendment filed 3/8/04 to the application filed on 6/13/00.
2. Claims 1-24 are pending in the case. Claims 1, 9, and 17 are independent claims.
3. The rejections of claims 1, 3, 9, 11, 17, 19 under 35 U.S.C. 102 (a) as being anticipated by Ishikawa have been withdrawn in view of the amendment.
4. The rejections of claims 2, 10, 18 under 35 U.S.C. 103(a) as being unpatentable over Ishikawa and further in view of Varma have been withdrawn in view of the amendment.
5. The rejections of claims 4-5, 12-13, 20-21 under 35 U.S.C. 103(a) as being unpatentable over Ishikawa and further in view of Rogson have been withdrawn in view of the amendment.
6. The rejections of claims 6-7, 14-15, 22-23 under 35 U.S.C. 103(a) as being unpatentable over Ishikawa and further in view of Walfish have been withdrawn in view of the amendment.
7. The rejections of claims 8, 16, and 24 under 35 U.S.C. 103(a) as being unpatentable over Ishikawa have been withdrawn in view of the amendment.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 3, 9, 11, 17, 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa (US Pat No. 5,812,863, 9/22/98) in view of Travis (US Pat No. 5,765,180, 6/9/98).

Regarding independent claim 1, Ishikawa discloses:

- displaying a word list for user selection of a correctly spelled word (figure 6: the candidates is the word list for user to select a correctly spelled word)

- displaying the user selected assistance information associated with the correctly spelled word (figure 6 and col 9, line 63 to col 10, line 11: labels or usage information next to the words (e.g. standard, written..) is the *assistance information* associated with the correctly spelled word; the fact that the user selects a correctly spelled word by pressing the Replace button suggests that the assistance information associated with it be also selected; figure 11, S8, S10, S11, S13: the information on usage is displayed with the candidate words, the list for users to select the correct spelled one; pressing the Replace button shows that the user selects the correct word thus suggests that the usage associated with it be selected)

Ishikawa does not disclose prompting a user to select assistance information associated with the correctly spelled word.

Travis discloses reporting the misspelling to the user and prompting the user for the correct spelling, then the spell checker replaces the misspelled word with the correctly spelled word (col 1, lines 30-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Travis into Ishikawa for the following reason. Travis discloses prompting a user for spell correcting and the misspelled word is replaced with the correctly spelled word. Ishikawa discloses displaying a list of correctly spelled words and the associated assistance information, and provides the Replace button for user to select a correctly spelled word with assistance information thus motivating to incorporate a prompt to user of Travis for selecting the assistance information

associated with the correctly spelled one since selecting the correctly spelled word suggests that the assistance information associated with it be also selected.

Regarding claim 3, which is dependent on claim 1, Ishikawa discloses replacing the misspelled word with the correctly spelled word selected by the user (figure 6 and col 11, lines 16-37).

Claims 9, 11, and 17, 19 are for the signal bearing and the system of method claims 1 and 3, and are rejected under the same rationale.

11. Claims 2, 10, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa in view of Travis as applied to claim 1 above, and further in view of Varma et al. (US Pat No. 6,507,831 B1, 1/14/03, filed 11/16/99).

Regarding claim 2, which is dependent on claim 1, Ishikawa does not disclose that the assistance information is selected from:

- one or more root words
- one or more spelling rules
- one or more memorization clues

Varma discloses:

- providing the description in free-form text for repair record or adjustment for a product document involved with spelling errors (col 1, lines 10-25; col 2, lines 47-54)
- one or more root words (figure 2 and col 4, lines 36-45: stemming provides the radical of a word)
- one or more related words (figure 2 and col 4, lines 36-45: word variants provide the related words of a word)

Varma does not disclose that the assistance information is selected from one or more memorization clues. Instead, Varma discloses determining a plurality of repair records are diagnostically relevant or irrelevant (col 2, line 55 to col 3, line 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Varma to include the clues as the assistance information since the clues help quickly determining whether a record is relevant or irrelevant.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Varma to include one or more spelling rules since the fact that the word variants provide the *related words of a word* suggests the various ways for approximately spelling various words similar to a word based on a spelling condition.

Also, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Varma into Ishikawa and Travis since the assistance information text in Varma helps enhancing the correcting process of misspelled words in Ishikawa to be performed faster and more accurately.

Claims 10 and 18 are for the signal bearing and the system of method claim 2, and are rejected under the same rationale.

12. Claims 4-5, 12-13, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa in view of Travis as applied to claim 1 above, and further in view of Rogson (US Pat Application Publication No. US 2002/0010726 A1, 1/24/02, filed 3/28/00).

Regarding claim 4, which is dependent on claim 1, Ishikawa and Travis do not disclose:

- replacing the misspelled word with a user input word
- storing in memory an association of the user input word as the correctly spelled word for the misspelled word

Instead, Ishikawa discloses that correcting a misspelled word can be performed by a way other than selecting one from the candidate list (col 11, lines 38-63: accepting the misspelled word if it is correctly proper noun such as a person's name and the inputted word is entered into the user dictionary).

Rogson discloses:

- replacing the misspelled word with a user input word ([0009]: "if the misspelled word is not in the static update list and the *user corrects the misspelling...*")
- storing in memory an association of the user input word as the correctly spelled word for the misspelled word ([0009]: "if the misspelled word is not in the static

update list and the user corrects the misspelling, *the misspelled word and the correction word are both captured a word pair in a dynamic update list*")

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Rogson into Ishikawa and Travis for the following reason. Rogson discloses replacing the misspelled word with a correct word inputted by a user providing the advantage of correcting a misspelled word by another way instead of selecting a correct one from the candidate list as in Ishikawa and Travis.

Regarding claim 5, which is dependent on claim 1, Ishikawa and Travis do not disclose:

- tracking a number of times the correctly spelled word has been misspelled
- when the number exceeds a threshold number, displaying a spelling exercise for user practice

Rogson discloses:

- tracking a number of times the correctly spelled word has been misspelled ([0026], [0049])
- when the number exceeds a threshold number, displaying a spelling exercise for user practice ([0028], [0032], [0033])

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Rogson to Ishikawa and Travis since Rogson has the capability of tracking the number of times the correctly spelled word has been misspelled and displaying the spelling exercise for user practice providing the

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advantage for improving the capability of correcting a misspelled word from the candidate list of Ishikawa by correcting the misspelled word via a spelling exercise.

Claims 12-13 and 20-21 are for the signal bearing and the system of method claims 4-5, and are rejected under the same rationale.

13. Claims 6-7, 14-15, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa and Travis as applied to claim 1 above, and further in view of Walfish et al. (US Pat No. 6,047,300, 4/4/00, filed 5/15/97).

Regarding claim 6, which is dependent on claim 1, Ishikawa and Travis do not disclose:

- identifying a misspelling pattern associated with the misspelled word
- displaying an explanation for correcting the misspelling pattern

Walfish discloses:

- identifying a misspelling pattern associated with the misspelled word (col 3, lines 3-47: misspelling pattern can be typographical errors or cognitive spelling errors)
- displaying an explanation for correcting the misspelling pattern (col 3, lines 3-47 and col 4, lines 48-64: the fact that the set of rules or different criteria designed for detecting the spelling errors applied for identifying the misspelled patterns and for replacing a misspelled word suggests that these rules be displayed for helping user to make decision)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Walfish into Ishikawa and Travis since Walfish discloses the misspelling pattern for a misspelled word and suggests displaying explanation for correcting the misspelled pattern providing the advantage of the misspelled correcting in Ishikawa since the misspelling patterns help users to easily recognize the error type as well as to quickly find a correct word to replace.

Regarding claim 7, which is dependent on claim 6, Ishikawa and Travis do not disclose the misspelling pattern comprises a typing error pattern.

Walfish discloses that the misspelling pattern comprises a typing error pattern (col 3, lines 3-33: "The different criteria are designed to detect common spelling errors. The *errors may be typographical errors* or cognitive spelling errors...").

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Walfish into Ishikawa and Travis since Walfish discloses typing error pattern included in the misspelling pattern providing an easy way to recognize the misspelled based on the error type and a fast way to replace the misspelled word by accurately finding the corresponding correct words.

Claims 14-15 and 22-23 are for the signal bearing and the system of method claims 6-7, and are rejected under the same rationale.

14. Claims 8, 16, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa (US Pat No. 5,812,863, 9/22/98, filed 9/26/94) in view of Angiulo et al. (US Pat No. 6,044,387, 3/28/00, filed 9/10/97).

Regarding claim 8, which is dependent on claim 1, Ishikawa discloses:

- analyzing a plurality of words in a document (figures 7 and 14, S1-S7)

Ishikawa does not displaying analysis results comprising at least one of a misspelled words count, a mistyped words count and a percentage of correctly spelled words.

Angiulo discloses displaying analysis results comprising a misspelled words count (figure 2: "found 21 misspelled words in 3 pages"). Further, the data columns Page, Count, Misspell indicate that the words in the pages are analyzed to find out the misspelled words and count them.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Angiulo into Ishikawa and Travis since Angiulo discloses analyzing the words in the documents and counting the misspelled words providing the advantage to apply counting of misspelled words to Ishikawa for fast rendering a spelling summary of a document.

Claims 16 and 24 are for the signal bearing and the system of method claim 8, and are rejected under the same rationale.

Response to Arguments

15. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Ishikawa does not disclose or suggest a spell checking program which prompts a user to select assistance information that is available for user review (Remarks, page 7).

Examiner agrees.

Travis, in combination with Ishikawa, discloses reporting the misspelling to the user and prompting the user for the correct spelling, then the spell checker replaces the misspelled word with the correctly spelled word (col 1, lines 30-47).

Ishikawa discloses a list of correctly spelled words and the associated assistance information, and provides the Replace button for user to select a correctly spelled word with assistance information (figure 6). The prompting feature in Travis, thus motivating to incorporate into Ishikawa for prompting a user to select an assistance information associated with the correctly spelled word since pressing the Replace button means selecting the correctly spelled word with assistance information, and thus selecting the correctly spelled word suggests that the assistance information associated with it be also selected.

Applicants argue that Varma does not disclose or suggest utilization of root words since Applicants do not agree that “stemming provides the radicals of a word” (Remarks, page 8).

Examiner respectfully disagrees.

Varma discloses stemming (figure 2). It was well known that stemming is providing with a stem, where the stem is the main part of a word to which affixes are added (see American Heritage Dictionary, page 1193). Therefore, stemming provides the root words (or the radicals) of a word. Also, since Varma includes stemming *in the spelling files* as one of the criteria for spelling checking, Varma suggests utilization of root words.

Applicants argue that Rogson does not disclose or suggest displaying a spelling exercise when the number of time a misspelled word has been corrected exceeds a threshold (Remarks, page 9).

Examiner respectfully disagrees.

Rogson does disclose displaying a spelling exercise when the number of time a misspelled word has been corrected exceeds a threshold ([0028], [0032], [0033]: adding the misspelled word and the correct spelling word to the static update list when the number of time a misspelled word has been corrected exceeds a threshold). Rogson also discloses that feature in figure 11, #1105, #1110, #1115.

Applicants argue that Walfish does not disclose and suggest displaying an explanation for correcting a spelling pattern because Walfish discloses an automatic correction system which intentionally hides the replacement criteria from users (Remarks, page 9). Examiner respectfully disagrees.

Though Walfish discloses an automatic correction system, Walfish does disclose the variation of spelling of a word via different criteria for user to select where the variation can be typographical errors such as the "Exactly One Adjacent Transpose." Said variation of spelling provided to users suggests an explanation for correcting a spelling pattern since the provided errors are error spellings for a correct pattern.

Applicants argue that Ishikawa does not disclose or suggest displaying analysis results comprising at least one of a misspelled words count, a mistyped words count, and a percentage of correctly spelled words as amended in claims 8, 16, 24.

Examiner agrees.

Angiulo discloses displaying analysis results comprising a misspelled words count (figure 2).

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fishkin (US Pat No. 6,460,074 B1, 10/1/02, filed 2/10/00).

Tang et al. (US Pat No. 6,636,849 B1, 10/21/03, filed 11/12/02, priority 11/23/99).

Rayson et al. (US Pat No. 5,761,689, 6/2/98, filed 9/1/94).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cong-Lac Huynh whose telephone number is 703-305-0432. The examiner can normally be reached on Mon-Fri (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Clh
5/11/04


STEPHEN S. HONG
PRIMARY EXAMINER